

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

New Divisional of Patent Application No.: 09/007,152

Applicant: George Putti  
Title: TRAVELING EXTRUSION MACHINE  
Examiner: Soohoo, T.  
Art Unit: 1723  
Agent's Ref.:

The Commissioner of Patents  
The United States Patent  
and Trademark Office  
Washington, DC  
U.S.A. 20231

Dear Sir:

## PRELIMINARY AMENDMENT

In the Disclosure

Change the title from "CONCRETE EXTRUSION MACHINE AND SPIRAL CONVEYOR THEREFOR" to -- TRAVELING EXTRUSION MACHINE --.

Under the title insert the heading- -This is a divisional of U.S. Patent App. No. 09/007,152 filed January 14, 1998 --.

Cancel the first paragraph on page 2 in favor of the following:

However, these bolts are often shaken loose by vibrators in the mandrel. The loose bolts allow halves of the conveyor to disconnect and can cause damage to the machine. Alternatively, the vibrations of

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the mandrels can cause the bolts to become welded to the main auger. Thus the bolts break off when attempts are made to loosen them to replace the sections of the spiral conveyors.

Cancel the fourth paragraph of page 2 in favor of the following:

It is a still further object of the invention to provide an improved spiral conveyor with a replaceable section which can be easily removed and replaced with a new section without undue labor costs or loss of production of the machine.

Cancel the fourth paragraph on page 3 and the top of page 4 with the following:

According to a still further aspect of the invention, there is provided a traveling extrusion machine for forming hollow core concrete sections. The machine has a frame and a feed chamber mounted on the frame for receiving premixed concrete. A molding chamber is adjacent to the feed chamber. A non-rotatable mandrel shaft extends from the feed chamber to the molding chamber. A rotatable spiral conveyor is mounted on the mandrel shaft and extends from the feed chamber to the molding chamber. The conveyor has a first section within the feed chamber having flights with a first constant external diameter. A second section of the conveyor adjacent to the molding chamber has flights with a second constant external diameter. The second diameter is greater than the first diameter. The second section extends along a portion of the conveyor. A third section of the conveyor is between the first section and the second section and has flights which taper from the first diameter to the second diameter. Preferably the second section has a plurality of flights.

Cancel the third paragraph under the heading "In the drawings:" on page 5.

Cancel the paragraph beginning at the bottom of page 9 and the top of page 10 in favor of the following:

FOOTNOTES

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Fig. 7 and 7a show a spiral conveyor similar to the spiral conveyor of Fig. 2. Conveyor 200 has a section 202 with flights 202.1 of a constant diameter  $D_1$ . The flights 204.1 of section 204 taper and increase in size toward section 206 which has flights 206.1 of a constant diameter  $D_2$  greater than section 202. Sections 202, 204 and 206 have lengths  $L_4$ ,  $L_5$  and  $L_6$  respectively. A hollow shaft 208 extends from a one piece casting forming sections 204 and 208 in this example. Section 206 is keyed onto shaft 208 by a keyway 210. Bolts 209 and 211 connect together two halves 205 and 206 of section 206. As seen in Fig. 7, the flights 202.1 of section 202 extend radially outwards further from shaft section 202.2 than the flights 206.1 of section 206 extend from shaft section 206.2.

In the Claims


Please cancel claims 1-18 without prejudice.

In the Drawings

Cancel the original informal drawings in favor of the amended formal drawings enclosed herewith.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current response. The attached page is captioned "Version with markings to show changes made."

Respectfully submitted,



Joseph W. Berenato, III  
Reg. No. 30,546

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

In the Disclosure

Change the title from "CONCRETE EXTRUSION MACHINE AND SPIRAL CONVEYOR THEREFOR" to - - TRAVELING EXTRUSION MACHINE - -.

Under the title insert the heading- -This is a divisional of U.S. Patent App. No. 09/007,152 filed January 14, 1998 - -.

Cancel the first paragraph on page 2 in favor of the following:

However, these bolts are often shaken [lose] loose by vibrators in the mandrel. The [lose] loose bolts allow halves of the conveyor to disconnect and can cause damage to the machine. Alternatively, the vibrations of the mandrels can cause the bolts to become welded to the main auger. Thus the bolts break off when attempts are made to loosen them to replace the sections of the spiral conveyors.

Cancel the fourth paragraph of page 2 in favor of the following:

It is [not] a still further object of the invention to provide an improved spiral conveyor with a replaceable section which can be easily removed and replaced with a new section without undue labor costs or loss of production of the machine.

Cancel the fourth paragraph on page 3 and the top of page 4 with the following:

According to a still further aspect of the invention, there is provided a traveling extrusion machine for forming hollow core concrete sections. The machine has a frame and a feed chamber mounted on the frame for receiving premixed concrete. A molding chamber is adjacent to the feed chamber. A non-rotatable mandrel shaft extends from the feed chamber to the molding chamber. A rotatable spiral

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conveyor is mounted on the mandrel shaft and extends from the [fee] feed chamber to the molding chamber. The conveyor has a first section within the feed chamber having flights with a first constant external diameter. A second section of the conveyor adjacent to the molding chamber has flights with a second constant external diameter. The second diameter is greater than the first diameter. The second section extends along a portion of the conveyor. A third section of the conveyor is between the first section and the second section and has flights which taper from the first diameter to the second diameter. Preferably the second section has a plurality of flights.

Cancel the third paragraph under the heading "In the drawings:" on page 5.

Cancel the paragraph beginning at the bottom of page 9 and the top of page 10 in favor of the following:

Fig. 7 and 7a show a spiral conveyor similar to the spiral conveyor of Fig. 2. Conveyor 200 has a section 202 with flights 202.1 of a constant diameter  $D_1$ . The flights 204.1 of section 204 taper and increase in size toward section 206 which has flights 206.1 of a constant diameter  $D_2$  greater than section 202. Sections 202, 204 and 206 have lengths  $L_4$ ,  $L_5$  and  $L_6$  respectively. A hollow shaft 208 extends from a one piece casting forming sections 204 and 208 in this example. Section 206 is keyed onto shaft 208 by a keyway 210. Bolts 209 and 211 connect together two halves 205 and 206 of section 206. As seen in Fig. 7, the flights 202.1 of section 202 extend radially outwards further from shaft section 202.2 than the flights 206.1 of section 206 extend from shaft section 206.2.

#### In the Claims

Please cancel claims 1-18 without prejudice.